

REMARKS

In an Office Action mailed July 21, 2009, Claims 29-32, 38-42, 45, and 52-55 were rejected. Herein, claims 29-32, 38-40, 43-48, 50, 52, 54, and 55 are currently amended. No new matter has been added. Claims 33-37 have been cancelled without prejudice or disclaimer to the subject matter therein. Further examination and reconsideration of the rejections are respectfully requested.

Replacement sheets for Figures 5, 7, and 9 are provided to remove text labeling, as item 10d, a section of the figures between the ferromagnetic member 5a and the hard magnetic member 10a. No new matter has been added.

Claims 43, 44, 46-51, and 56 were indicated as containing allowable subject matter. Applicants would like to thank the Examiner for determining the above claims contain allowable subject matter.

Claims 29-32, 39, 40, 45, and 52-55 were rejected under 35 U.S.C. 102(b) as being anticipated by Maruyama (JP 2003-067969). Applicants respectfully request reconsideration of the rejection based on the remarks below.

Claim 29 recites, in part, a switching device that switches a reflection mirror between a deformed state and a non-deformed state using a magnetic force, the switching device having a hard magnetic member made of a hard magnetic material and a magnetizing unit, the hard magnetic member having a state in which the hard magnetic member is magnetized and a state in which the hard magnetic member is demagnetized, and that the magnetizing unit is switchable between the state in which the hard magnetic member is magnetized and the state in which the hard magnetic member is demagnetized. Applicants respectfully submit that these features of claim 29 are not disclosed or suggested in Maruyama.

Regarding Maruyama, Applicants note that this reference discloses a variable mirror 409 having a ferromagnetic substrate 409e attached to a permanent magnet 426 via an arrangement of

coils 427, in which an electromagnetic force is generated by applying an electric current to the coils 427 in order to change the form of the variable mirror 409 (*See* Drawing 18 and [0036]-[0038]). Applicants note that Maruyama contains no disclosure that the permanent magnet 426 is magnetized or demagnetized, therefore, according to the Maruyama reference, it is necessary to apply constant electric current to the coil 427 to maintain the electromagnetic force needed to change the form of the variable mirror 409.

Contrast the above structure disclosed in Maruyama to that of claim 29 in which a switching device for switching a reflection mirror between a deformed state and a non-deformed state using a magnetic force, the switching device having a hard magnetic member made of a hard magnetic material and a magnetizing unit, the hard magnetic member having a state in which the hard magnetic member is magnetized and a state in which the hard magnetic member is demagnetized, and the magnetizing unit is **switchable between the state in which the hard magnetic member is magnetized and the state in which the hard magnetic member is demagnetized**. In other words, a switching signal needs only to be applied at the time of switching between the magnetized state and the demagnetized state of the hard magnetic member, therefore, constant electric current is **not** needed to maintain a magnetic force used to control the reflection mirror.

Based on the above remarks, Applicants respectfully submit that claim 29 is patentable over Maruyama.

Further, dependent claims 30-32, 39, 40, and 45 are patentable over Maruyama based at least on their dependency from allowable claim 29.

Regarding claims 52 and 54, Applicants note that claims 52 and 54 recite, in part, a switching device that switches a reflection mirror between a deformed state and a non-deformed state using a magnetic force, the switching device having a hard magnetic member made of a hard magnetic material and a magnetizing unit, the hard magnetic member having a state in which the hard magnetic member is magnetized and a state in which the hard magnetic member is demagnetized, and that the magnetizing unit is switchable between the state in which the hard

magnetic member is magnetized and the state in which the hard magnetic member is demagnetized. For at least similar reasons as discussed above with respect to claim 29, Applicants respectfully submit that claims 52 and 54 are patentable over Maruyama.

Further, dependent claims 53 and 55 are patentable over Maruyama based at least on their dependency from allowable claims 52 and 54, respectively.

Claims 38, 41, and 42 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama in view of Nishioka et al. (U.S. Patent Application Publication No. 2006/0187563, hereafter “Nishioka”). Applicants note that claims 38, 41, and 42 depend from claim 29. Regarding Nishioka, Applicants respectfully submit that this reference does not provide disclosure to obviate the above-mentioned deficiencies of Maruyama. In view of the foregoing, Applicants respectfully submit that claims 38, 41, and 42 are patentable over any combination of Maruyama and Nishioka based at least on their dependency from allowable claim 29.

Therefore, for at least the reasons presented above, Applicants respectfully submit that independent claims 29, 52, and 54, as well as the claims depending therefrom, are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels that there are any issues remaining which must be resolved before the application can be passed to issue, Applicants respectfully request that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Akira KUROSUKA et al.

/Stephen W. Kopchik/

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Stephen W. Kopchik
Registration No. 61,215
Attorney for Applicants

SWK/DMO/cbc
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
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